# COMP 207: Game Development and Technologies

## ****Description****

This course covers the methods and technologies used to implement and test video games. Students will continue the design process begun in Game Design and Development, with an emphasis on the software design and development, prototyping, and testing phases. Additionally, the course will introduce students to the various technologies (graphics, artificial intelligence, game physics, audio, and networking) and software tools used by game developers. This course may not be counted toward a computer science major. Prerequisites: COMP 10700 or COMP 17100. 4 credits.

## ****Details****

The first third of this course is spent learning a professional game development engine individually. The final two thirds of the course is spent working collaboratively in teams of 3-4 students. Each team is responsible for building a single stand-alone game.

## ****Learning Objectives****

Students who successfully complete this course will be able to:

1. **Develop 3D computer games**
   1. come up with a game idea
   2. implement a game idea
2. **Improve ability to learn material on your own**
   1. research how to create game mechanics needed for games
   2. implement those mechanics that have been research
3. **Work as part of a team**
   1. learn to handle the problems that arise while working on large projects as part of a team
   2. successfully create a game as part of a team

## ****How to Succeed in CS 207****

* **Do all of the work associated with the course on time** - All material in this course builds on the previous material so if you fall behind it is nearly impossible to catch up.
* **Ask questions if you don't understand** - I guarantee that you are not the only one who is confused.
* **Come to Office Hours & TA Sessions** - Come early and often. Don't wait until you are totally lost.
* **Be Patient** - When it gets frustrating, step away. Take a break. Maybe a nap. Come back fresh.
* **Be Flexible**- When working in a team not everyone will have the same time constraints and things come up, be ready to roll with the punches to make it work

## ****Textbook****

Recommended text: Please note that the book is available in electronic format from [Packt Publishing](http://www.packtpub.com/" \t "_blank) at reduced cost.  
Unreal Engine Game Development Cookbook  
John P. Doran  
Packt Publishing

## ****Grading****

* 20% Lab assignments
* 80% Final project
  + 20% Game
  + 10% Writeup
  + 10% Homework assignments
  + 10% Tutorials
  + 5% Group Evaluations
  + 15% Vertical slices
  + 10% Usability testing

## ****Attendance, Class Participation, and Engagement****

Class attendance is mandatory and you are responsible for all material and announcements given in class. If you miss a class, you are responsible for obtaining the missed material/announcements. Note that verifiable health issues or family emergencies, religious holidays, court appearances, and most college-authorized extracurricular activities such as athletic events, musical and theatrical performances, and professional conferences are considered excused absences. Make sure to inform me of excused absences as early as possible.

With that said, just being in class is not all that is required of you. Rather, it is important that you contribute to class as well, both to the entire group, and to smaller groups when we have in-class exercises.

## ****Lateness Policy****

Almost all assignments will be cumulative, meaning that they build off of one another. Therefore it is crucial that work be submitted **on time**. To facilitate this, **if an assignment is not submitted on time (at or before the specific due date and time) it can receive a maximum score of 50% if it is turned in with 2 days. Assignments will generally not be accepted more than 2 days late**, as any further lateness would inhibit your ability to complete the next assignment in a timely manner. Exceptions are possible, but you should approach the professor early and clarify the acceptable reason for lateness.

## ****Honesty Policy****

IC plagiarism document:

http://www.ithaca.edu/hs/depts/theatre/handbook/academics/honesty/

IC academic misconduct site:

http://www.ithaca.edu/sacl/judicial/academics/

All Ithaca College rules on plagiarism apply to computer science courses with small modifications. With regard to online references students are encouraged to search the web for information that can help them create solutions. When a website is discovered that provides information that helps solve a problem, a link to the website and a one line explanation of what information was found on that website must be provided in the comments at the top of the program. Code may not be copied exactly but must instead be modified enough to show understanding of the code used. Students may not submit code questions to the web for others to solve.

With regard to online tutorials, students may run through the tutorial in order to learn the material but can only turn in something significantly different than what the tutorial has them create. The student must demonstrate understanding of the material presented in the tutorial through modification. Again, the url of the tutorial must appear in the opening comment block with a brief explanation.

Students are encouraged to discuss problems given in class unless otherwise specified in an assignment. Code may be shown during these discussions but the solution cannot be copied in any way. No code may be shared. The names of all students with whom the person writing the code spoke to about the solution must be listed in the opening comment of the file. In cases of the same code being turned in by multiple students, all students who turn in the same code will be subject to potential penalties.

Potential penalties include a 0 on the assignment, F in course, and/or sent on to college disciplinary committee. You will also have increased scrutiny on future assignments.

## ****Student Accommodation****

In compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act, reasonable accommodation will be provided to students with documented disabilities on a case-by-case basis. Students must register with Student Disability Services and provide appropriate documentation to Ithaca College before any academic adjustment will be provided.

## ****Mental Health****

Diminished mental health, including significant stress, mood changes, excessive worry, or problems with eating and/or sleeping can interfere with optimal academic performance. The source of symptoms might be related to your course work; if so, please speak with me.  However, problems with relationships, family worries, loss, or a personal struggle or crisis can also contribute to decreased academic performance.

Ithaca College provides cost-free mental health services through the Center for Counseling and Psychological Services (CAPS) to help you manage personal challenges that threaten your personal or academic well-being. CAPS is a CONFIDENTIAL place to talk about sexual assault incidents.

In the event I suspect you need additional support, expect that I will express to you my concerns and the reasons for them.  It is not my intent to know the details of what might be troubling you, but simply to let you know I am concerned and that help (e.g., CAPS, Health Center, Chaplains, etc.), if needed, is available.

Remember, getting help is a smart and courageous thing to do -- for yourself and for your loved ones.